

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>2001358</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">FOR FURTHER ACTION</div> <div style="font-size: small;">see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>	
International application No. <b>PCT/SE 00/01135</b>	International filing date: (day/month/year) <b>31 May 2000</b>	(Earliest) Priority Date (day/month/year) <b>3 June 1999</b>
Applicant <b>ACTIVE BIOTECH AB et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☒ Certain claims were found unsearchable (See Box I).
  
2. ☐ Unity of invention is lacking (See Box II).
  
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
 

☐ filed with the international application.  
☐ furnished by the applicant separately from the international application,  

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ transcribed by this Authority.
  
4. With regard to the title, ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:
  
5. With regard to the abstract,
 

☒ the text is approved as submitted by the applicant.  
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
  
6. The figure of the drawings to be published with the abstract is:
 

Figure No. \_\_\_\_\_ ☐ as suggested by the applicant.  
☐ because the applicant failed to suggest a figure.  
☐ because this figure better characterizes the invention.

☒ None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE00/01135**Box I** Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: **2-4, 30-40, 44-61, 65-81, 85-90, 96, 97, 101-103 partially and**  
because they relate to subject matter not required to be searched by this Authority, namely:  
**42-43, 63-64, 83-84, 95 and 104-105 completely.**

**See extra sheet\***

2. ☒ Claims Nos.: **12, 21, 29, 50-70, 91 and 96 (partially)**  
because they relate to parts of the international application that do not comply with the prescribed requirements to such  
an extent that no meaningful international search can be carried out, specifically:

**See extra sheet\*\***

3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).:

**Box II** Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all  
searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment  
of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report  
covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is  
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
P SE00/01135

\* claims 2-4, 30-40, 44-61, 65-81, 85-90, 96, 97, 101-103 partially and 42-43, 63-64, 83-84, 95 and 104-105 completely

Claims 2-4, 30-40, 44-61, 65-81, 85-90, 96, 97, 101-103 partially and 42-43, 63-64, 83-84, 95 and 104-105 completely relate to methods of treatment of the human or animal body by therapy or diagnostic methods practised on the human or animal body. See PCT Rule. 39.1.(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds.

\*\* claims 12, 21, 29, 50-70, 91 and 96 (partially) relates to a binding entity specific to  $\alpha 11$  integrin or homologues or fragments thereof. The wording "binding entities" is too broad to permit a meaningful search, i.e. claims directed to these entities fails to comply with PCT-Art . The search is limited to antibodies directed towards  $\alpha 11$  integrins.

## INTERNATIONAL SEARCH REPORT

International application No.

P E 00/01135

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C07K 14/705, A61K 38/17, C07K 16/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C07K, A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Int. J. Cancer, Volume 66, 1996, Michele Genini et al, "Isolation of genes differentially expressed in human primary myoblasts and embryonal rhabdomyosarcoma" page 571 - page 577	6-9,11,22, 26-27,30-44, 48-49,71-85, 89-90
A	--	1-5,10, 12-21,23-25, 28-29,45-47, 50-70,86-
X	Developmental Dynamics, Volume 204, 1995, Donald Gullberg et al, "Up-Regulation of a Novel Integrin alpha-Chain (alpha mt) on Human Fetal Myotubes" page 57 - page 65	5
A	--	1-4,6-105

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

20 Sept 2000

Date of mailing of the international search report

02 -10- 2000

Name and mailing address of the ISA/

Swedish Patent Office

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## INTERNATIONAL SEARCH REPORT

International application No.

P E 00/01135

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9219647 A1 (THE SCRIPPS RESEARCH INSTITUTE), 12 November 1992 (12.11.92)	1-21,30-44, 48-65,69-85, 89-93,95, 97-105
A	--	22,26-29
X	J Biol Chem., Volume 273, No 32, August 1998, Lisbet Camper et al, "Isolation, Cloning, and Sequence Analysis of the Integrin Subunit alpha 10, a beta1-associated Collagen Binding Integrin Expressed on Chondrocytes", page 20383 - page 20389	1-21,30-44, 48-65,69-85, 89-93,97-105
A	--	22,26-29
X	File WPI, Derwent accession no. 1997-297879, ATHENA NEUROSCIENCES INC: "Uses of humanised alpha-4 integrin antibody - for treatment of asthma, atherosclerosis, AIDS, dementia, etc."; & WO,A1,9718838, 19970529 DW199727	1-21,29-44, 48-65,69-70, 91-93, 96-100,103,
A	WO 9822500 A2 (COR THERAPEUTICS, INC.), 28 May 1998 (28.05.98)	1-105
A	Frontiers in Bioscience, Volume 3, October 1998, Donald Gullberg et al, "Integrins during muscle development and in muscular dystrophies" page 1039 - page 1050	1-105
P,X	THE JOURNAL OF BIOLOGICAL CHEMISTRY, Volume 274, No 36, Sept 1999, Teet Velling et al, "cDNA Cloning and Chromosomal Localization of Human alpha11 Integrin", page 25735 - page 25742	1-105

## INTERNATIONAL SEARCH REPORT

International application No.

P E 00/01135

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	National Library of Medicine (NLM), file Medline, Medline accession no. 99417678, Lehnert K et al: "Cloning, sequence analysis, and chromosomal localization of the novel human integrin alpha11 subunit (ITGA11); & Genomics 1999 Sep 1; 60 (2): 179-87 & GenBank AF 109681  -- -----	1-105

# INTERNATIONAL SEARCH REPORT

Information on patent family members

01/08/00

International application No.

PCT/SE 00/01135

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
WO	9219647	A1	12/11/92	AU	1896392 A	21/12/92
				US	5310874 A	10/05/94
				US	5589570 A	31/12/96
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WO	9822500	A2	28/05/98	AU	5595198 A	10/06/98
				EP	0942931 A	22/09/99
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